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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

EMDADI, KAMRAN

ART UNIT PAPER NUMBER

2667

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/995,861

**Applicant(s)**MAGNUSSON, PER OLOF  
MAGNUS**Examiner**

Kamran Emdadi

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5 sheets</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Heo (U.S. Patent Application No. 2003/0081584).

Regarding claims 1, and 21, Heo teaches a method for assigning OVSF codes for use as channelization codes, defined by a binary code tree (see figure 5). Each node of the tree has a spreading factor (SF) defined by its level (k), and when a code of a particular level is selected, the node selects a code having a largest combined weight being a sum of weights for all codes allocated in the subtree (see [0028] and [0058]).

Claims 1-9, 21-29, 35-38 and 40-43, are rejected under 35 U.S.C. 102(e) as being anticipated by Cheng (U.S. Patent No. 6,526,065).

Regarding claims 1, and 21, Cheng teaches a method for assigning OVSF codes for use as channelization codes, defined by a binary code tree (see figures 4-5). Each node of the tree has a spreading factor (SF) defined by its level (k), and when a code of a particular level is selected, the node selects a code having a largest combined weight

being a sum of weights for all codes allocated in the subtree (see column 4, lines 20-37).

Regarding claims 35 and 40, Cheng teaches, in addition to the above described features, assigning closely related codes of a common subtree to maximize code utilization for future code assignments (see column 3, lines 15-20).

Regarding claims 2, and 22, Cheng teaches a time duration being related to the weight of a codeword (see column 5, lines 8-11).

Regarding claims 3 and 23, Cheng teaches statistically deriving the code words (see column 4, lines 30-37).

Regarding claims 4, 8, 24, 28, 37 and 42 Cheng teaches assigning codes based on service type or a predetermined strategy of a user request (see column 5, lines 58-62).

Regarding claim 5, and 25 Cheng teaches assigning codes based on user behavior (see column 3, lines 25-28).

Regarding claims 6, 26, 36 and 41 Cheng teaches setting a start code in the code tree (column 4, lines 53-57), selecting a code descendant, with the same level of available codes, with a largest combined weight (see column 4, lines 58-65), and allocating a code base on the spreading factor and performing an alternative code if needed (see column 6, lines 4-13).

Regarding claims 7 and 27, see above rejection for claims 35 and 40.

Regarding claims 9, 29, 38 and 43, Cheng teaches assigning a first code as the code with the largest assigned weight (see column 4, lines 58-65).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-20, 30-34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng in view of Choi et al. (U.S. Patent No. 20020051431).

Cheng teaches all of the above described features of a method for assigning OVSF codes to a requesting user, however, Cheng is silent regarding an RNC radio controller base station used to perform the code assignments, and the associated types of data messages as recited in claims 31-32 and 34. Choi discloses a mobile communications network that uses an RNC radio device to connect with mobile users of the cellular network (see figures 6-7). Choi further discloses NBAP messages being sent from the base station to a node B, which may be a link setup REQUEST (see [0115]), RRC signaling is used (see [0174]), and a BEARER reconfiguration message is used (see [0196]).

Motivation to combine these two references is evident from the background portions of their respective specifications. For instance, Choi discloses the need for distinguishing different downlink signals using different OVSF codes when a user enters the coverage area of a node supporting a USTS service. Similarly, Cheng discloses the need to efficiently assign OVSF codes to requesting users in an effort to maximize

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future code assignment availability. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the OVSF code assignment technique with the USTS support service to maximize efficient use of the OVSF codes while performing the USTS service to mobile terminals of users to enable a cross-platform compatibility of wireless services.

Regarding claims 10, 20 and 39, see the rejection above with regard to claims 1, 11 and 21.

Regarding claim 30, Cheng teaches performing the operations of assigning an OVSF code via a base station (see column 2, lines 15-20).

Regarding claim 12, Cheng teaches a time duration being related to the weight of a codeword (see column 5, lines 8-11).

Regarding claim 13, Cheng teaches statistically deriving the code words (see column 4, lines 30-37).

Regarding claims 14 and 18, Cheng teaches assigning codes based on service type or a predetermined strategy of a user request (see column 5, lines 58-62).

Regarding claim 15, Cheng teaches assigning codes based on user behavior (see column 3, lines 25-28).

Regarding claim 16, Cheng teaches setting a start code in the code tree (column 4, lines 53-57), selecting a code descendant, with the same level of available codes, with a largest combined weight (see column 4, lines 58-65), and allocating a code base on the spreading factor and performing an alternative code if needed (see column 6, lines 4-13).

Regarding claim 17, see above rejection for claims 35 and 40.

Regarding claim 19, Cheng teaches assigning a first code as the code with the largest assigned weight (see column 4, lines 58-65).

Regarding claim 39, Cheng teaches an RNC (see figure 6).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is 571-272-6047. The examiner can normally be reached M-F between the hours of 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kamran Emdadi

July 18, 2005



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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2667

7/19/05